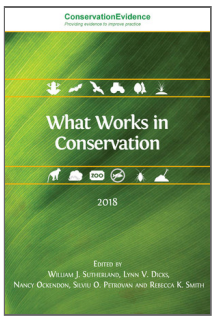

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5.6 Threat: Invasive and other problematic species

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5.6 Threat: Invasive and other problematic species

5.6.1 Invasive plants

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for invasive plants?	
Unknown effectiveness (limited evidence)	• Manually/mechanically remove invasive plants • Use herbicides to remove invasive plant species
No evidence found (no assessment)	• Use grazing to remove invasive plant species • Use prescribed fire to remove invasive plant species

Unknown effectiveness (limited evidence)

Manually/mechanically remove invasive plants

Two replicated, controlled studies in Hawaii and Ghana found that removing invasive grass or weed species increased understory plant biomass or tree seedling height. Two replicated, controlled studies in the USA and Hawaii found no effect of removing invasive shrubs or plants on understory plant diversity or growth rate of native species. *Assessment: unknown effectiveness — limited evidence (effectiveness 40%; certainty 33%; harms 15%).*

http://www.conservationevidence.com/actions/1228

Use herbicides to remove invasive plant species

One replicated, randomized, controlled study in the USA found no effect of controlling invasive plants using herbicide on native plant species richness. *Assessment: unknown effectiveness — limited evidence (effectiveness 5%; certainty 10%; harms 0%).*

http://www.conservationevidence.com/actions/1229

No evidence found (no assessment)

We have captured no evidence for the following interventions:

- Use grazing to remove invasive plant species
- Use prescribed fire to remove invasive plant species

5.6.2 Native plants

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for native plants?	
No evidence found (no assessment)	• Manually/mechanically remove native plants

No evidence found (no assessment)

We have captured no evidence for the following interventions:

- Manually/mechanically remove native plants

5.6.3 Herbivores

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for herbivores?	
Likely to be beneficial	• Use wire fences to exclude large native herbivores
Unknown effectiveness (limited evidence)	• Use electric fencing to exclude large native herbivores

No evidence found (no assessment)	• Control large herbivore populations • Control medium-sized herbivores • Use fencing to enclose large herbivores (e.g. deer)

Likely to be beneficial

Use wire fences to exclude large native herbivores

Two replicated, controlled studies in the USA found that excluding large herbivores increased tree density. One of three studies, including two replicated, paired-sites, before-and-after studies, in Canada, Bhutan and Ireland found that excluding large herbivores increased the biomass of young trees. One found it decreased the density of young trees and one found mixed effects on species. Five of 10 studies, including two replicated, randomized, controlled studies, across the world found that excluding large herbivores increased the cover or and size of understory plants. Six found no effect on the cover, seed density, species richness or diversity of understory plants. *Assessment: Likely to be beneficial (effectiveness 50%; certainty 65%; harms 10%).*

http://www.conservationevidence.com/actions/1230

Unknown effectiveness (limited evidence)

Use electric fencing to exclude large native herbivores

One controlled study in South Africa found that using electric fencing to exclude elephants and nyalas increased tree density. *Assessment: Unknown effectiveness (effectiveness 65%; certainty 10%; harms 0%).*

http://www.conservationevidence.com/actions/1231

No evidence found (no assessment)

We have captured no evidence for the following interventions:

- Control large herbivore populations
- Control medium-sized herbivores
- Use fencing to enclose large herbivores (e.g. deer)

5.6.4 Rodents

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for rodents?	
Unknown effectiveness (limited evidence)	• Control rodents

Unknown effectiveness (limited evidence)

Control rodents

One controlled study in New Zealand found that rodent control decreased native plant species richness and had no effect on total plant species richness. *Assessment: unknown effectiveness — limited evidence (effectiveness 10%; certainty 10%; harms 50%).*

http://www.conservationevidence.com/actions/1232

5.6.5 Birds

Based on the collated evidence, what is the current assessment of the effectiveness of interventions for birds?	
Unknown effectiveness (limited evidence)	• Control birds

Unknown effectiveness (limited evidence)

Control birds

One controlled study in Australia found that removing birds did not improve the health of the trees in a narrow-leaved peppermint forest. *Assessment: unknown effectiveness — limited evidence (effectiveness 0%; certainty 15%; harms 0%).*

http://www.conservationevidence.com/actions/1151